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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,098	03/03/2004	Po-Cheng Chen	250122-1310	4084

24504 7590 09/21/2005

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EXAMINER

RAABE, CHRISTOPHER M

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/792,098

Applicant(s)

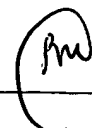
CHEN ET AL.

Examiner

Christopher M. Raabe

Art Unit

2879



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 8, 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al. (US Pre-grant Publication 2002/0175623).

With regard to claim 1,

Kim et al. disclose a plasma display panel, comprising: a first substrate (paragraph 5); a second substrate (paragraph 5); a rib structure disposed on the second substrate to space the second substrate from the first substrate, wherein the rib structure partitions off the second substrate into a plurality of first, second and third sub-pixels adjacent to each other, and both the first and second sub-pixels are smaller than the third sub-pixels (paragraph 12); red phosphor disposed on each first sub-pixel; green phosphor disposed on each second sub-pixel; and blue phosphor disposed on each third sub-pixel (paragraph 25); wherein adjacent first, second and third sub-pixels form a pixel and all of the pixels between the first and second substrates are filled with neon gas (paragraph 5).

With regard to claim 2,

Kim et al. disclose the plasma display panel, wherein every first sub-pixel with red phosphor is smaller than every second sub-pixel with green phosphor (paragraph 25).

With regard to claim 3,

Kim et al. disclose the plasma display panel, further comprising a plurality of first, second and third address electrodes disposed on the second substrate and in the center of the first, second and third sub-pixels correspondingly (fig 2, and 26 of fig 3).

With regard to claim 8,

Kim et al. disclose a plasma display panel, comprising: a first substrate (paragraph 5); a second substrate (paragraph 5); a rib structure disposed on the second substrate to space the second substrate from the first substrate, wherein the rib structure partitions off the second substrate into a plurality of first, second and third sub-pixels adjacent to each other, and both of the first and second sub-pixels are smaller than the third sub-pixels (paragraph 12); red phosphor disposed on each first sub-pixel; green phosphors disposed on each second sub-pixel; blue phosphors disposed on each third sub-pixel (paragraph 25), wherein adjacent first, second and third sub-pixels form a pixel and all of the sub-pixels between the first and second substrates are filled with Neon (paragraph 5); a plurality of first address electrodes disposed on the second substrate and on the center of first sub-pixels; a plurality of first address electrodes disposed on the second substrate and in the center of the first sub-pixels; a plurality of second address electrodes disposed on the second substrate and in the center of the second sub-pixels; and a plurality of third address electrodes disposed on the second substrate and in the center of the third sub-pixels (fig 2, and 26 of fig 3).

With regard to claim 9,

Kim et al. disclose the plasma display panel, wherein every first sub-pixel with red phosphor is smaller than or equal to every second sub-pixel with green phosphor (paragraph 25).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 4,10,13 rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. as applied to claims 3,8 above, and further in view of Yoon et al. (US Pre-grant Publication 2004/0113553).

With regard to claim 4,

Kim et al. disclose the plasma display panel.

Kim et al. do not disclose the first, second and third sub-pixels to be hexagonal.

Yoon et al. do disclose the first, second and third sub-pixels to be hexagonal (paragraph 55).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the shape disclosed by Yoon et al. into the plasma display panel of Kim et al. in order to provide for a delta configuration.

With regard to claim 10,

Kim et al. disclose the plasma display panel.

Kim et al. do not disclose the first, second and third sub-pixels to be hexagonal.

Yoon et al. do disclose the first, second and third sub-pixels to be hexagonal (paragraph 55).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the shape disclosed by Yoon et al. into the plasma display panel of Kim et al. in order to provide for a delta configuration.

With regard to claim 13,

Kim et al. disclose the plasma display panel.

Kim et al. do not disclose each pixel to be dodecagonal.

Yoon et al. do disclose each pixel to be dodecagonal (paragraph 55 and fig 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the shape disclosed by Yoon et al. into the plasma display panel of Kim et al. in order to provide for a delta configuration.

5. Claims 5-7, 11,12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. as applied to claims 3,8 above, and further in view of Yoon et al. (as above) and Morikawa et al. (Japanese Patent 2002-304948).

With regard to claim 5,

Kim et al. disclose the plasma display panel.

Kim et al. do not disclose the first and second sub-pixels with red and green phosphors respectively to be hexagonal, nor the third sub-pixels with blue phosphor to be octagonal.

Yoon et al. do disclose first and second sub-pixels with red and green phosphors respectively to be hexagonal (paragraph 55).

Morikawa et al. do disclose third sub-pixels with blue phosphor to be octagonal (fig 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the shapes disclosed by Yoon et al. and Morikawa et al. into the plasma display panel of Kim et al. in order to provide for a delta configuration.

With regard to claim 6,

Kim et al. disclose the plasma display panel.

Kim et al. do not disclose the second sub-pixels with green phosphor to be equilaterally hexagonal.

Yoon et al. does disclose the second sub-pixels with green phosphor to be equilaterally hexagonal (fig 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the shape disclosed by Yoon et al. into the plasma display panel of Kim et al. in order to allow for a more tessellate arrangement of cells.

With regard to claim 7,

Kim et al. disclose the plasma display panel.

Kim et al. do not disclose each pixel to be dodecagonal.

Yoon et al. do disclose each pixel to be dodecagonal (fig 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the shape disclosed by Yoon et al. into the plasma display panel of Kim et al. in order to allow for a more tessellate arrangement of cells.

With regard to claim 11,

Kim et al. disclose the plasma display panel.

Kim et al. do not disclose the first and second sub-pixels with red and green phosphors respectively to be hexagonal, nor the third sub-pixels with blue phosphor to be octagonal.

Yoon et al. do disclose first and second sub-pixels with red and green phosphors respectively to be hexagonal (paragraph 55).

Morikawa et al. do disclose third sub-pixels with blue phosphor to be octagonal (fig 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the shapes disclosed by Yoon et al. and Morikawa et al. into the plasma display panel of Kim et al. in order to provide for a delta configuration.

With regard to claim 12,

Kim et al. disclose the plasma display panel.

Kim et al. do not disclose the second sub-pixels with green phosphor to be equilaterally hexagonal.

Yoon et al. does disclose the second sub-pixels with green phosphor to be equilaterally hexagonal (fig 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the shape disclosed by Yoon et al. into the plasma display panel of Kim et al. in order to allow for a more tessellate arrangement of cells.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patents 462619, 5311337, 5982095, US Pre-grant Publications 2002/0063532, 2002/0063701, 2004/0169473, 2001/0040539.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Raabe whose telephone number is 571-272-8434. The examiner can normally be reached on m-f 7am-3:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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PRIMARY EXAMINER